

WHAT IS CLAIMED IS

5

1. An image reading apparatus comprising:  
a reading part reading original;  
a time measuring part being able to measure  
different times selectively; and

10

a defining part determining separation of  
sheets of the original read by said reading part,  
wherein said time measuring part selects a  
time to be measured according to a predetermined  
condition, and said defining part determines the  
separation of sheets of the original when the selected  
time has elapsed without an operation concerning a  
reading operation being re-started after the reading  
operation of said reading part is once stopped.

20

2. The image reading apparatus as claimed in  
claim 1, wherein said predetermined condition comprises  
a condition of using the apparatus.

25

3. The image reading apparatus as claimed in claim 2, wherein said condition of using the apparatus comprises a function of the apparatus which is executed by reading the original.

5

4. The image reading apparatus as claimed in claim 3, wherein said function of the apparatus is at least one of a facsimile transmission function, a photocopying function and a scanning function.

15

5. The image reading apparatus as claimed in claim 2, wherein said condition of using the apparatus is either one of a case where an automatic original feeding function is used and a case where the automatic original feeding function is not used and a user manually feeds the original.

25

6. The image reading apparatus as claimed in claim 5, wherein the time measured by the time measuring part is set short in the case where the automatic original feeding function is used but long in the case where a user manually feeds the original.

10 7. The image reading apparatus as claimed in claim 5, wherein, when operation of changing from a condition in which the automatic original feeding function is used to a condition in which the original is fed manually is detected during the measurement of the  
15 time of the case of using the automatic original feeding function by said time measuring part, said defining part determines that the measurement has finished even during the measurement of said time, and that the separation of sheets of the original occurs.

20

8. The image reading apparatus as claimed in claim 5, wherein, when an operation of again manually  
25

feeding the original is detected during measurement of the time of the case of manually feeding the original by said time measuring part, said time measuring part re-starts the measurement of said time.

5

9. The image reading apparatus as claimed in  
10 1, wherein measurement of the time by said time measuring part is stopped by a predetermined operation.

15

10. The image reading apparatus as claimed in claim 1, further comprising a registering part for previously registering, for the original to be read, as a plurality of documents,

20

wherein image data read by said reading part from the original is treated as respective ones of the plurality of documents registered by said registering part.

25

11. The image reading apparatus as claimed in  
claim 10, wherein said registering part is used for  
registering document information for each of the  
plurality of documents, and adds the document  
5 information to the image data for each document.

10 12. The image reading apparatus as claimed in  
claim 11, wherein the document information comprises at  
least one of a reading condition, user information and  
storage information.

15

13. The image reading apparatus as claimed in  
claim 10, further comprising a display part displaying  
20 the contents registered by said registering part during  
the reading operation by said reading part.

25

14. The image reading apparatus as claimed in claim 10, further comprising:

a display part displaying the contents registered by said registering part after the reading operation by said reading part; and

a confirming/editing part for confirming/editing the registered contents viewing them displayed by said displaying part.

10

15. The image reading apparatus as claimed in claim 1, treating one or a plurality of sheets of original as one document, comprising:

a display part displaying contents comprising separation of sheets of the original determined by said time measuring part and defining part, as temporary registered contents; and

a confirming/editing part for confirming/editing the temporary registered contents viewing them displayed by said displaying part.

25

16. The image reading apparatus as claimed in claim 15, wherein said confirming/editing part is used for registering document information for each document of the plurality of document, and adding the document information to the image data for each document.

10 17. The image reading apparatus as claimed in claim 16, wherein the document information comprises at least one of a reading condition, user information and storage information.

15

18. An image reading apparatus treating one or a plurality of sheets of original as one document, comprising:

a display part displaying contents comprising separation of documents determined by a predetermined method, as temporary registered contents; and

a confirming/editing part for  
25 confirming/editing the temporary registered contents

viewing them displayed by said displaying part.

5

19. The image reading apparatus as claimed in claim 18, wherein said confirming/editing part is used for registering document information for each document of the plurality of document, and adding the document  
10 information to the image data for each document.

15

20. The image reading apparatus as claimed in claim 19, wherein the document information comprises at least one of a reading condition, user information and storage information.

20

21. An image reading apparatus treating one or a plurality of sheets of original as one document,  
25 comprising:



a registering part for previously registering,  
for original to be read, as a plurality of documents;  
and

a reading part reading the original,  
5 wherein image data obtained by said reading  
part is treated for each document of the plurality of  
documents registered by said registering part.

10

22. The image reading apparatus as claimed in  
claim 21, wherein said registering part registers  
document information for each document of the plurality  
15 of documents, and adds the document information to the  
image data for each document.

20

23. The image reading apparatus as claimed in  
claim 22, wherein the document information comprises at  
least one of a reading condition, user information and  
storage information.

25

24. The image reading apparatus as claimed in claim 21, further comprising a display part displaying the contents registered by said registering part during the reading operation by said reading part.

5

25. The image reading apparatus as claimed in claim 21, further comprising:

a display part displaying contents registered by said registering part after the reading operation by said reading part; and

a confirming/editing part for confirming/editing the registered contents viewing them displayed by said displaying part.

20

26. An image reading apparatus treating one or a plurality of sheets of original as one document, comprising:

a reading part reading the original,

a registering part for registering, for image

25

data obtained from original by said reading part, as a plurality of documents; and

wherein the image data obtained by said reading part is treated for each document of the plurality of documents registered by said registering part.

10

27. The image reading apparatus as claimed in claim 26, wherein said registering part registers document information for each document of the plurality of documents, and adds the document information to the image data for each document.

15

20

28. The image reading apparatus as claimed in claim 27, wherein the document information comprises at least one of a reading condition, user information and storage information.

25

29. An image processing system comprising:  
the image reading apparatus as claimed in  
claim 1; and

a storage device storing therein image data  
5 for which separation of sheets of original is already  
determined obtained by said image reading apparatus, as  
particular documents obtained from the separation of  
sheets of the original.

10

30. An image processing system comprising:  
the image reading apparatus as claimed in  
15 claim 10; and

a storage device storing therein image data  
for which separation of sheets of original is already  
determined obtained by said image reading apparatus, as  
particular documents obtained from the separation of  
20 sheets of the original.

25

31. An image processing system comprising:

the image reading apparatus as claimed in  
claim 15; and

a storage device storing therein image data  
for which separation of sheets of original is already  
5 determined obtained by said image reading apparatus, as  
particular documents obtained from the separation of  
sheets of the original.

10

32. An image processing system comprising:  
the image reading apparatus as claimed in  
claim 18; and

15

a storage device storing therein image data  
for which separation of sheets of original is already  
determined obtained by said image reading apparatus, as  
particular documents obtained from the separation of  
sheets of the original.

20

33. An image processing system comprising:  
25 the image reading apparatus as claimed in

claim 21; and

a storage device storing therein image data  
for which separation of sheets of original is already  
determined obtained by said image reading apparatus, as  
5 particular documents obtained from the separation of  
sheets of the original.

10

34. An image processing system comprising:  
the image reading apparatus as claimed in  
claim 26; and

a storage device storing therein image data  
15 for which separation of sheets of original is already  
determined obtained by said image reading apparatus, as  
particular documents obtained from the separation of  
sheets of the original.

20

35. The image processing system as claimed in  
claim 29, further comprising a communication part  
25 transmitting the image data for which separation of

sheets of original is already determined obtained by  
said image reading apparatus, as particular documents  
obtained from the separation of sheets of the original,  
to said storage device.

5

36. The image processing system as claimed in  
10 claim 30, further comprising a communication part  
transmitting the image data for which separation of  
sheets of original is already determined obtained by  
said image reading apparatus, as particular documents  
obtained from the separation of sheets of the original,  
15 to said storage device.

20 37. The image processing system as claimed in  
claim 31, further comprising a communication part  
transmitting the image data for which separation of  
sheets of original is already determined obtained by  
said image reading apparatus, as particular documents  
25 obtained from the separation of sheets of the original,

to said storage device.

5

38. The image processing system as claimed in claim 32, further comprising a communication part transmitting the image data for which separation of sheets of original is already determined obtained by said image reading apparatus, as particular documents obtained from the separation of sheets of the original, to said storage device.

15

39. The image processing system as claimed in claim 33, further comprising a communication part transmitting the image data for which separation of sheets of original is already determined obtained by said image reading apparatus, as particular documents obtained from the separation of sheets of the original, to said storage device.

25



40. The image processing system as claimed in  
claim 34, further comprising a communication part  
transmitting the image data for which separation of  
sheets of original is already determined obtained by  
5 said image reading apparatus, as particular documents  
obtained from the separation of sheets of the original,  
to said storage device.

10

41. The image processing system as claimed in  
claim 35, wherein said communication part comprises a  
network.

15

42. The image processing system as claimed in  
20 claim 36, wherein said communication part comprises a  
network.

25

43. The image processing system as claimed in claim 37, wherein said communication part comprises a network.

5

44. The image processing system as claimed in claim 38, wherein said communication part comprises a network.

10

45. The image processing system as claimed in claim 39, wherein said communication part comprises a network.

15

20

46. The image processing system as claimed in claim 40, wherein said communication part comprises a network.

25

47. The image processing system as claimed in claim 35, wherein said communication part comprises a facsimile transmission system.

5

48. The image processing system as claimed in claim 36, wherein said communication part comprises a facsimile transmission system.

10

49. The image processing system as claimed in claim 37, wherein said communication part comprises a facsimile transmission system.

15

20

50. The image processing system as claimed in claim 38, wherein said communication part comprises a facsimile transmission system.

25

51. The image processing system as claimed in claim 39, wherein said communication part comprises a facsimile transmission system.

5

52. The image processing system as claimed in claim 40, wherein said communication part comprises a facsimile transmission system.

15 53. An image reading method comprising the steps of:

- a) reading original;
  - b) measuring different times selectively; and
  - c) determining separation of sheets of the original read by said step a),
- 20 wherein said step b) selects a time to be measured according to a predetermined condition, and said step c) determines the separation of sheets of the original when the selected time has elapsed without an
- 25 operation concerning a reading operation being restarted

after the reading operation of said step a) is once stopped.

5

54. The image reading method as claimed in claim 53, wherein said predetermined condition comprises a condition of using an apparatus to be used.

10

55. The image reading method as claimed in claim 54, wherein said condition of using the apparatus comprises a function of the apparatus which is executed by reading the original.

20

56. The image reading method as claimed in claim 55, wherein said function of the apparatus is at least one of a facsimile transmission function, a photocopying function and a scanning function.

25

57. The image reading method as claimed in claim 54, wherein said condition of using the apparatus is either one of a case where an automatic original feeding function is used and a case where the automatic original feeding function is not used and a user manually feeds the original.

10

58. The image reading method as claimed in claim 57, wherein the time measured by said step b) is set short in the case where the automatic original feeding function is used but long in the case where a user manually feeds the original.

15

20

59. The image reading method as claimed in claim 57, wherein, when operation of changing from a condition in which the automatic original feeding function is used to a condition in which the original is fed manually is detected during the measurement of the time of the case of using the automatic original feeding

25

function by said b), said step c) determines that the measurement has finished even during the measurement of said time, and that the separation of sheets of the original occurs.

5

60. The image reading method as claimed in claim 57, wherein, when an operation of again manually feeding the original is detected during measurement of the time of the case of manually feeding the original by said step b), said step b) re-starts the measurement of said time.

15

61. The image reading method as claimed in 53, wherein measurement of the time by said step b) is stopped by a predetermined operation.

25

62. The image reading method as claimed in claim 53, further comprising the step d) previously registering, for the original to be read, as a plurality of documents,

5            wherein image data read by said step a) from the original is treated as respective ones of the plurality of documents registered by said step d).

10

63. The image reading method as claimed in claim 62, wherein said step d) registers document information for each of the plurality of documents, and  
15       adds the document information to the image data for each document.

20

64. The image reading method as claimed in claim 63, wherein the document information comprises at least one of a reading condition, user information and storage information.

25



65. The image reading method as claimed in claim 62, further comprising the step e) displaying the contents registered by said step d) during the reading operation by said step a).

5

66. The image reading method as claimed in claim 62, further comprising the steps of:

e) displaying the contents registered by said step d) after the reading operation by step a); and

f) confirming/editing the registered contents viewing them displayed by said step e).

15

67. The image reading method as claimed in claim 53, treating one or a plurality of sheets of original as one document, comprising the steps of:

d) displaying contents comprising separation of sheets of the original determined by said steps b) and c), as temporary registered contents; and

e) confirming/editing the temporary registered

25

contents viewing them displayed by said step d).

5

68. The image reading method as claimed in claim 67, wherein said step e) registers document information for each document of the plurality of document, and adds the document information to the image data for each document.

15

69. The image reading method as claimed in claim 68, wherein the document information comprises at least one of a reading condition, user information and storage information.

20

70. An image reading method treating one or a plurality of sheets of original as one document, comprising the steps of:

25

a) displaying contents comprising separation of sheets of original determined by a predetermined method, as temporary registered contents; and

b) confirming/editing the temporary registered contents viewing them displayed by said step a).

10 71. The image reading method as claimed in claim 70, wherein said step b) registers document information for each document of the plurality of document, and adds the document information to the image data for each document.

15

20 72. The image reading method as claimed in claim 71, wherein the document information comprises at least one of a reading condition, user information and storage information.

25

73. An image reading method treating one or a plurality of sheets of original as one document, comprising the steps of:

a) previously registering, for original to be  
5 read, as a plurality of documents; and

b) reading the original,

wherein image data obtained by said step b) is treated for each document of the plurality of documents registered by said step a).

10

74. The image reading method as claimed in  
15 claim 73, wherein said step a) registers document information for each document of the plurality of documents, and adds the document information to the image data for each document.

20

75. The image reading method as claimed in claim 74, wherein the document information comprises at  
25 least one of a reading condition, user information and

storage information.

5

76. The image reading method as claimed in claim 73, further comprising the step c) displaying the contents registered by said step a) during the reading operation by said step b).

10

77. The image reading method as claimed in claim 73, further comprising:

15

c) displaying contents registered by said registering part after the reading operation by said step b); and

d) confirming/editing the temporary registered contents viewing them displayed by said step c).

20

25

78. An image reading method treating one or a

plurality of sheets of original as one document,  
comprising the steps of:

a) reading the original; and

b) registering, for image data obtained from  
5 original by said reading part, as a plurality of  
documents,

wherein the image data obtained by said step  
a) is treated for each document of the plurality of  
documents registered by said step b).

10

79. The image reading method as claimed in  
15 claim 78, wherein said step b) registers document  
information for each document of the plurality of  
documents, and adds the document information to the  
image data for each document.

20

80. The image reading method as claimed in  
claim 79, wherein the document information comprises at  
25 least one of a reading condition, user information and

storage information.

5

81. An image processing method comprising the  
step of storing image data for which separation of  
sheets of original is already determined obtained by the  
image reading method as claimed in claim 53, as  
10 particular documents obtained from the separation of  
sheets of the original.

15

82. An image processing method comprising the  
step of storing image data for which separation of  
sheets of original is already determined obtained by the  
image reading method as claimed in claim 62, as  
20 particular documents obtained from the separation of  
sheets of the original.

25

83. An image processing method comprising the step of storing image data for which separation of sheets of original is already determined obtained by the image reading method as claimed in claim 67, as  
5 particular documents obtained from the separation of sheets of the original.

10

84. An image processing method comprising the step of storing image data for which separation of sheets of original is already determined obtained by said image reading method as claimed in claim 70, as  
15 particular documents obtained from the separation of sheets of the original.

20

85. An image processing method comprising the step of storing image data for which separation of sheets of original is already determined obtained by the image reading method as claimed in claim 73, as  
25 particular documents obtained from the separation of



sheets of the original.

5

86. An image processing method comprising the step of storing image data for which separation of sheets of original is already determined obtained by the image reading method as claimed in claim 78, as particular documents obtained from the separation of sheets of the original.

15

87. The image processing method as claimed in claim 81, further comprising the step of transmitting the image data for which separation of sheets of original is already determined obtained by said image reading method, as particular documents obtained from the separation of sheets of the original, to be stored by said storing step.

25

88. The image processing method as claimed in claim 82, further comprising the step of transmitting the image data for which separation of sheets of original is already determined obtained by said image reading method, as particular documents obtained from the separation of sheets of the original, to be stored by said storing step.

10

89. The image processing method as claimed in claim 83, further comprising the step of transmitting the image data for which separation of sheets of original is already determined obtained by said image reading method, as particular documents obtained from the separation of sheets of the original, to be stored by said storing step.

20

90. The image processing method as claimed in claim 84, further comprising the step of transmitting the image data for which separation of sheets of

25

original is already determined obtained by said image reading method, as particular documents obtained from the separation of sheets of the original, to be stored by said storing step.

5

91. The image processing method as claimed in  
10 claim 85, further comprising the step of transmitting the image data for which separation of sheets of original is already determined obtained by said image reading method, as particular documents obtained from the separation of sheets of the original, to be stored  
15 by said storing step.

92. The image processing method as claimed in  
claim 86, further comprising the step of transmitting  
20 the image data for which separation of sheets of original is already determined obtained by said image reading method, as particular documents obtained from the separation of sheets of the original, to be stored by said storing step.

25

93. The image processing method as claimed in claim 87, wherein said transmitting step uses a network.

5

94. The image processing method as claimed in claim 88, wherein said transmitting step uses a network.

10

95. The image processing method as claimed in claim 89, wherein said transmitting step uses a network.

15

96. The image processing method as claimed in claim 90, wherein said transmitting step uses a network.

20

25

97. The image processing method as claimed in

claim 91, wherein said transmitting step uses a network.

5

98. The image processing method as claimed in claim 92, wherein said transmitting step uses a network.

10

99. The image processing method as claimed in claim 87, wherein said transmitting step uses a facsimile transmission system.

15

100. The image processing method as claimed in claim 88, wherein said transmitting step uses a facsimile transmission system.

25

101. The image processing method as claimed  
in claim 89, wherein said transmitting step uses a  
facsimile transmission system.

5

102. The image processing method as claimed  
in claim 90, wherein said transmitting step uses a  
10 facsimile transmission system.

15 103. The image processing method as claimed  
in claim 91, wherein said transmitting step uses a  
facsimile transmission system.

20

104. The image processing method as claimed  
in claim 92, wherein said transmitting step uses a  
facsimile transmission system.

25